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Report of the administrator of the international transaction log under the Kyoto Protocol

Report of the administrator of the international transaction log under the Kyoto Protocol

Summary

This fourteenth annual report of the administrator of the international transaction log (ITL) provides information to the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP) on the activities of the ITL administrator in the period from 1 October 2017 to 30 September 2018. It also contains information on transactions of Kyoto Protocol units, as requested at CMP 6, and information on the outcomes of the 20th Registry System Administrators Forum, which took place on 27 and 28 September 2018 in Bonn. The CMP, by decision 12/CMP.1, requested the Subsidiary Body for Implementation (SBI) to consider, at its future sessions, the annual reports of the ITL administrator. The SBI may wish to take note of the information contained in this report and to provide guidance to the secretariat and Parties, as necessary, concerning the implementation of registry systems.

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Contents

		Paragraphs	*Page*
I.	Introduction	1–6	3
	A. Mandate	1–3	3
	B. Scope	4	3
	C. Possible action by the Subsidiary Body for Implementation	5–6	3
II.	Work undertaken since the publication of the thirteenth annual report of the administrator of the international transaction log under the Kyoto Protocol	7–56	3
	A. Summary of work undertaken	7–9	3
	B. Implementation activities	10–20	4
	C. Operational activities	21–41	5
	D. Independent assessment of national registries and go-live activities	42–46	9
	E. Registry System Administrators Forum	47–55	10
	F. Other activities	56	11
III.	Organizational arrangements and resources	57–70	11
	A. Resource requirements and expenditure	58–65	11
	B. Income to support the activities of the administrator of the international transaction log	66–69	13
	C. Actions and proposals to optimize the cost structure of the international transaction log	70	15

Annexes

I.	Registry status as at 30 September 2018	16
II.	Scale of international transaction log fees and status of fee payments for the biennium 2018–2019 as at 30 September 2018	17
III.	Number of transactions proposed to the international transaction log from 1 October 2017 to 30 September 2018	18
IV.	Number of Kyoto Protocol units subject to transactions proposed to the international transaction log from 1 October 2017 to 30 September 2018	19

I. Introduction

A. Mandate

1. The Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP), at its first session, requested the secretariat to establish and maintain an international transaction log (ITL) to verify the validity of transactions proposed by registries established under decisions 3/CMP.1 and 13/CMP.1.[1] The ITL is essential for the implementation of the mechanisms under Articles 6, 12 and 17 of the Kyoto Protocol.

2. The Conference of the Parties (COP), at its tenth session, also requested the secretariat, as the ITL administrator, to report annually to the CMP on organizational arrangements, activities and resource requirements and to make any necessary recommendations to enhance the operation of registry systems.[2]

3. CMP 1 further requested the Subsidiary Body for Implementation (SBI) to consider, at its future sessions, the annual reports of the ITL administrator with a view to requesting the CMP to provide guidance, as necessary, in relation to the operation of registry systems.[3]

B. Scope

4. This fourteenth annual report of the ITL administrator to the CMP, covering the reporting period of 1 October 2017 to 30 September 2018, provides information on the implementation of the ITL and its operational status, including the facilitation of cooperation with registry system administrators (RSAs) through the Registry System Administrators Forum (RSA Forum) and the independent assessment of registry systems. It also contains information on transactions of Kyoto Protocol units.

C. Possible action by the Subsidiary Body for Implementation

5. The SBI may wish to take note of the information contained in this report and to request the CMP to provide guidance to the secretariat and Parties, as necessary, concerning the implementation of registry systems.

6. The SBI may also wish to provide guidance to the ITL administrator on finalizing the data exchange standards, as divergent views on implementing the carry-over process for Parties included in Annex I without quantified emission limitation or reduction commitments for the second commitment period meant that the work could not be completed.

II. Work undertaken since the publication of the thirteenth annual report of the administrator of the international transaction log under the Kyoto Protocol

A. Summary of work undertaken

7. The ITL administrator continues to convene the RSA Forum and to coordinate the tasks of its working groups.

8. Activities related to the tenth annual assessment of national registries and the accounting of Kyoto Protocol units were conducted, including generating standard independent assessment reports (SIARs) on the basis of annual national inventory reports (NIRs) and annual standard electronic format (SEF) reports with information on transactions

[1] Decision 13/CMP.1, annex, paragraph 38.
[2] Decision 16/CP.10, paragraph 6(m).
[3] Decision 12/CMP.1, paragraph 11.

and changes in national registries applicable to the second commitment period of the Kyoto Protocol for 2017.

9. The ITL administrator continues to support the operations of the ITL. Detailed information on its operational activities and performance is provided in chapter II.C below.

B. Implementation activities

1. International transaction log releases

10. During the reporting period there were two releases of ITL software. The first release, as specified in the thirteenth annual report of the ITL administrator,[4] containing fixes for minor issues raised during the latest security and penetration tests of the ITL, was deployed in October 2017. The second release, deployed in May 2018, was to support changes to the data centre hosting of the ITL infrastructure (see paras. 16–19 below).

2. Standard electronic format reporting application

11. Parties included in Annex I report, in the SEF, information on emission reduction units, certified emission reductions (CERs), temporary CERs, long-term CERs, assigned amount units and removal units from their national registry transferred or acquired in the year preceding the reporting year.[5]

12. CMP 11 requested the ITL administrator to develop an application to facilitate the submission of the SEF for reporting Kyoto Protocol units for the second commitment period of the Kyoto Protocol and to report on progress in developing and testing the application in its annual report.[6] The ITL administrator developed an application to enable the preparation of the SEF reports, as specified in the eleventh annual report of the ITL administrator.[7]

13. During the reporting period the ITL administrator prepared and released a new version of the SEF reporting application containing minor bug fixes, which was successfully used by Parties in the 2018 reporting cycle.

3. International transaction log operational procedures

14. During the reporting period no changes were made to the existing operational procedures.

4. International transaction log technology

15. Following the acquisition at the end of 2017 of the vendor of the digital certificates used for the ITL by another company, the ITL administrator organized the deployment of a new line of digital certificates used to authenticate registry systems and to comply with industry standards.

5. Data centre hosting of the international transaction log infrastructure

16. In support of the relevant activity included in the budget for the ITL for the biennium 2018–2019,[8] the secretariat finalized an international competitive procurement process for the data centre hosting of the ITL infrastructure.

17. Following completion of that procurement process, the secretariat commenced migration of the ITL infrastructure. The target migration architecture is based on an industry standard cloud-based infrastructure, which provides the following benefits:

[4] FCCC/SBI/2017/INF.11, paragraph 13.
[5] In accordance with decision 15/CMP.1, annex, paragraph 11.
[6] Decision 3/CMP.11, paragraph 19.
[7] FCCC/SBI/2015/INF.12, paragraph 13.
[8] FCCC/SBI/2017/4/Add.2, paragraph 10.

(a) Simplification of maintenance and renewals of the ITL system by moving from a physical to a virtual infrastructure environment;

(b) Utilization of scalable and robust delivery processes based on the ITIL;[9]

(c) Provision of a delivery model that allows updates to the ITL infrastructure with minimal operational disruption;

(d) Continual application of best practices for the security infrastructure;

(e) Reduction of carbon footprint by consolidating the secretariat's server infrastructure;

(f) Optimization and savings through a consolidated provisioning model with the secretariat's Information and Communication Technology (ICT) programme.

18. In the first half of 2018 the secretariat completed a proof of concept migration to validate the feasibility of the target cloud architecture. This was followed by the migration of the ITL non-production environment,[10] which was thoroughly tested to ensure the quality of the solution.

19. The secretariat will continue with the configuration and testing activities with a view to completing the migration by early 2019.

6. Information technology service management

20. The secretariat is supporting arrangements to enhance information technology service management to optimize the ITL service and the outcomes of the data centre hosting described in paragraphs 16–19 above. It is currently exploring options for optimizing and consolidating activities related to the ITL service desk, software development and application support.

C. Operational activities

1. Support for registry testing

21. During the reporting period the ITL administrator supported the functional testing for the second commitment period of the Kyoto Protocol of two national registries.[11]

2. International transaction log disaster recovery testing

22. Owing to the migration of the ITL infrastructure, no full annual disaster recovery testing was carried out in the reporting period. Such testing is planned to be conducted in 2019 in collaboration with RSAs. The failover of the individual components of the new ITL infrastructure and data replication between the primary and secondary sites of the ITL are being tested as part of the ITL migration.

3. Transaction data and analysis

23. The volume of activity in the ITL can be measured using various transactional and operational metrics. Figure 1 shows the number of transactions proposed to the ITL in the production environment[12] each month during the reporting period. The breakdowns by registry of the number of transactions and the number of Kyoto Protocol units subject to transactions proposed to the ITL in the reporting period are shown in annexes III and IV, respectively.

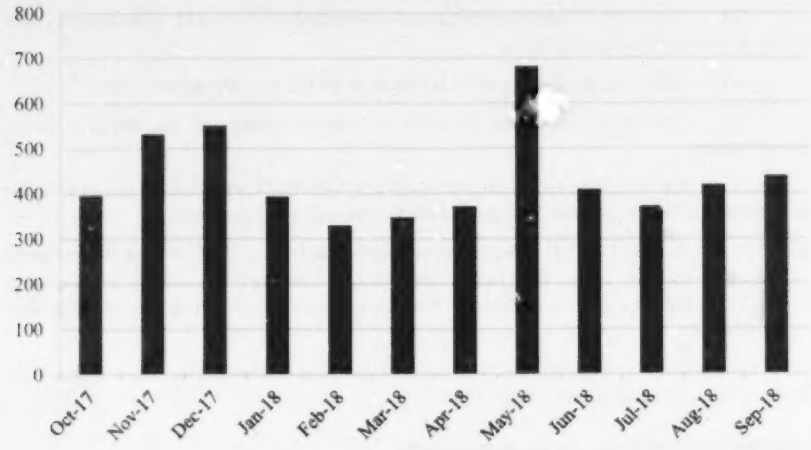
[9] A set of best practices for information technology service management.

[10] The test system of the ITL used to support emissions trading under the Kyoto Protocol.

[11] In accordance with annex H to the data exchange standards, which contains functional test suites covering modalities, rules and guidelines for emissions trading under Article 17 of the Kyoto Protocol.

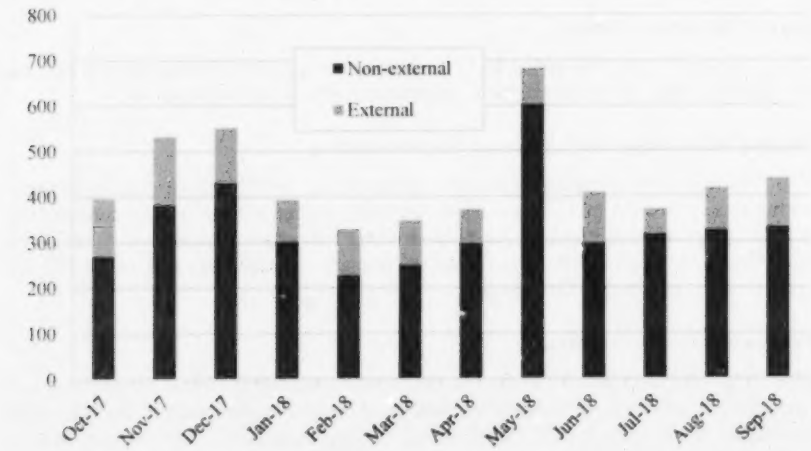
[12] The live system of the ITL used to support emissions trading under the Kyoto Protocol.

Figure 1
Number of transactions proposed to the international transaction log from 1 October 2017 to 30 September 2018



24. External transactions, in which the units involved leave the originating registry and arrive at a different registry, and non-external transactions, in which the units stay in the same registry, take place in the registry systems and the ITL. Figure 2 shows the evolution of the breakdown of external and non-external transactions in the ITL in the reporting period.

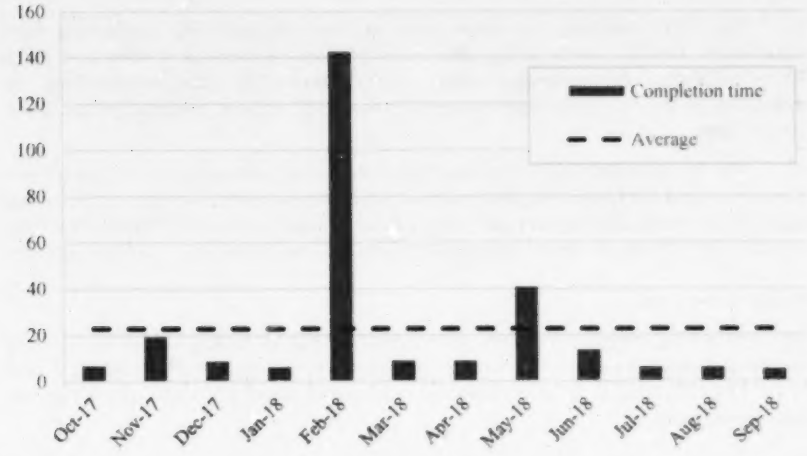
Figure 2
Number of external compared with non-external transactions in the international transaction log from 1 October 2017 to 30 September 2018



25. Transactions proposed to the ITL end in one of three statuses: terminated, cancelled or completed.

26. The transaction completion time includes the latency incurred due to the travel time of messages through the registry network and the processing time within registries, the ITL and the European Union transaction log (EUTL) if a European Union Emissions Trading System registry is involved in the transaction. The monthly average transaction completion times in the reporting period are displayed in figure 3.

Figure 3
Monthly average transaction completion times from 1 October 2017 to 30 September 2018
(seconds)

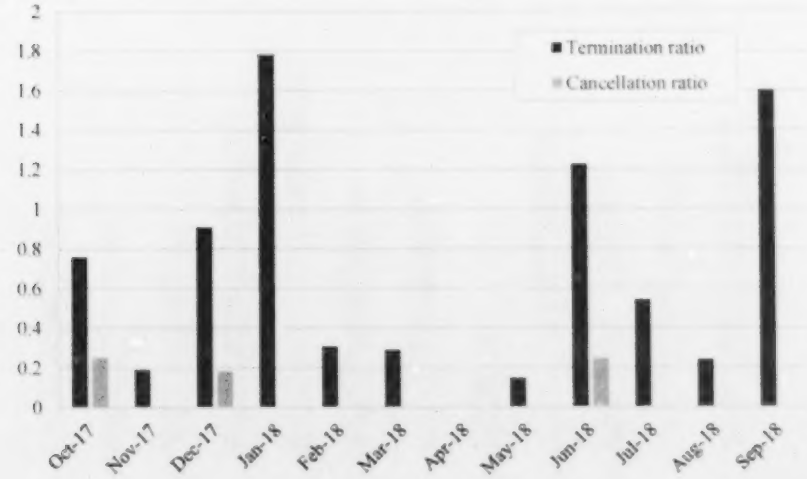


27. The longer average completion time observed in February is due to national registry downtime whereby some ongoing transactions took longer to complete.

28. Transactions that are not compliant with the data exchange standards are terminated by the ITL. The transaction termination ratio, an indicator of the level of internal checking performed by registries to ensure that the proposed transaction is accurate, is obtained by dividing the number of terminated transactions by the number of transactions proposed in a given time frame. The evolution of the ratio in the reporting period is shown in figure 4.

29. When a transaction has not reached a final status within 24 hours, it is automatically cancelled by a clean-up mechanism. The transaction cancellation ratio, an indicator of the extent of communication problems in registry systems, is obtained by dividing the number of cancelled transactions by the number of proposed transactions in a given time frame. Figure 4 provides the transaction cancellation ratios in the reporting period.

Figure 4
Transaction cancellation and termination ratios from 1 October 2017 to 30 September 2018
(per cent)



30. The reconciliation process ensures that holdings of Kyoto Protocol units are consistent between registries and the ITL. The occurrence of a reconciliation inconsistency indicates a discrepancy between the ITL and a registry's records. There were no inconsistent reconciliations during the reporting period.

31. The ITL facilitates communication between registries in performing their transactions. The ITL can be unavailable due to planned maintenance windows, of which RSAs are informed in advance, and unplanned outages caused by operational incidents. The availability of the ITL in the reporting period, taking into account unplanned outages, was 100 per cent.

32. The ITL started to receive units applicable to the second commitment period of the Kyoto Protocol in April 2013, when the first issuance of CERs for the second commitment period was made in the clean development mechanism (CDM) registry. As at 30 September 2018, 490,297,658 CERs for the second commitment period had been issued for 1,197 CDM projects.

4. Status of carry-over

33. Following completion of the true-up period, 17 Parties carried over units issued for the first commitment period to the second commitment period of the Kyoto Protocol. A total of 137,153,029 CERs, 163,314,432 emission reduction units and 5.794,523 assigned amount units were carried over.

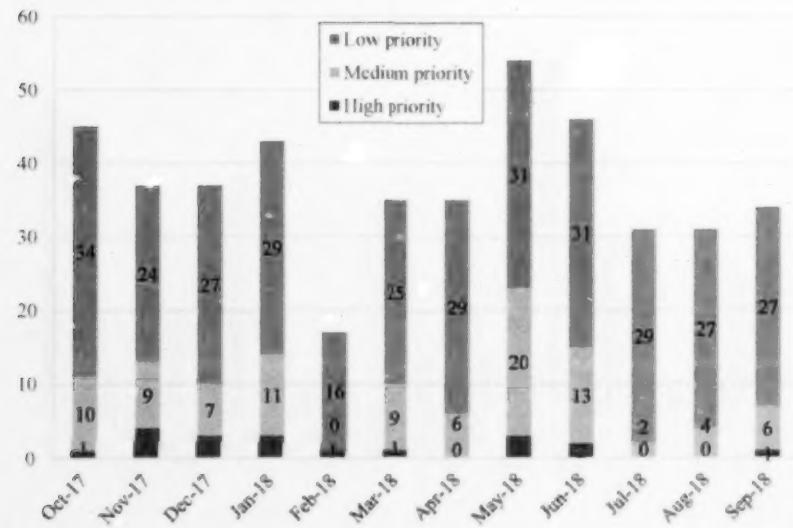
5. International transaction log service desk

34. The ITL service desk is the focal point for all support provided to RSAs for operating and testing their registries. The ITL service desk also carries out the technical activities related to the initialization and go-live processes under the supervision of the ITL administrator. The ITL service desk provides continuous support to RSAs from 8 p.m. on Sundays until midnight on Fridays (Coordinated Universal Time).

35. Figure 5 tracks the number of support requests handled by the ITL service desk during the reporting period, categorized by priority. High-priority support requests are initiated when the processing of transactions from one or more registries cannot be performed. Medium-priority support requests are related to the performance or the stability of the ITL, which may affect transaction processing. Low-priority support requests are related to information items or performance issues that do not directly affect transaction processing.

Figure 5

Number of support requests handled by the international transaction log service desk from 1 October 2017 to 30 September 2018



6. Change management activities

36. Since the go-live of the ITL, the ITL administrator has established a change management procedure for making changes to the ITL software and to the procedures governing various processes.

37. In the reporting period no ITL change requests were submitted and the ITL administrator continued to maintain and keep the data exchange standards up to date in collaboration with RSAs.

38. Owing to diverging views on implementing the carry-over process for Parties included in Annex I without quantified emission limitation or reduction commitments for the second commitment period, it has not been possible to issue a final version of the data exchange standards with complete support for the second commitment period processes. The SBI may wish to provide guidance to the ITL administrator on this issue, whose resolution is essential to ensuring accurate accounting of all Kyoto Protocol units.

7. Communications

39. The ITL administrator continues to facilitate collaboration among RSAs to ensure the accurate, efficient and secure operation of registry systems. To support this process, the ITL administrator utilizes and maintains a number of communication channels, including the RSA extranet collaboration platform, pages on the public UNFCCC website and a monthly ITL team newsletter.

40. The ITL administrator supported the work of the secretariat in updating the UNFCCC website to improve public access to the ITL information using modern and user-friendly technology.

41. The turnover in RSAs is relatively high, and the registry system and accounting of Kyoto Protocol units are complex matters, leading to a steep learning curve for newcomers. Since a large body of documentation and presentations, covering over 10 years of operation, is available on the RSA extranet, the ITL administrator is exploring ways to make the most relevant presentations and documents available to newcomers for them to familiarize themselves quickly with the registry system processes and procedures and the accounting framework of the Kyoto Protocol.

D. Independent assessment of national registries and go-live activities

1. Annual assessment activities

42. The process of creating the SIARs[13] expands on the initial independent assessment of national registries. The process is followed by RSAs when reporting annually on changes in the national registries and providing information on accounting of Kyoto Protocol units, and guides the activities carried out by assessors when reviewing reported changes and accounting information. The final SIARs are forwarded to the expert review teams for consideration as part of the review of national registries.[14]

43. The ITL administrator continues to encourage and promote the engagement of RSAs in the SIAR process[15] with a view to stimulating the sharing of information on national registry related reporting and review and thus improving the quality of the information on national registries in the annual submissions and optimizing the ITL cost structure.

44. Before the registry assessment by the SIAR assessors, the Party submits an NIR and a SEF report to the secretariat. During the reporting period 38 Parties submitted their NIRs with information on changes in their national registries and SEF reports with information on transactions applicable to the second commitment period of the Kyoto Protocol for 2017.

[13] Mandated by decision 16/CP.10, paragraph 5(a).
[14] In accordance with decision 16/CP.10, paragraph 6(k).
[15] In accordance with decision 16/CP.10, paragraph 6(c).

45. The following issues regarding the assessed registries were identified and addressed in the recommendations provided by the assessors in the final SIARs:

(a) Some Parties did not fully comply with the requirement contained in decision 13/CMP.1, annex, paragraphs 44–48, to make information publicly accessible;

(b) Some Parties did not fully comply with the requirement contained in decision 15/CMP.1, annex, paragraph 32, to provide complete information on changes in their national registry.

2. Go-live activities

46. Since no registry initiated a go-live process in the reporting period, the ITL administrator did not provide any relevant support. As at 30 September 2018, 38 national registries and the CDM registry were connected to the ITL (see annex I).

E. Registry System Administrators Forum

47. The ITL administrator convenes the RSA Forum to coordinate the technical and management activities of RSAs, to provide a platform for RSAs to cooperate with each other and to provide input to the development of common operational procedures, recommended practices and information-sharing measures for registry systems.[16]

48. Participation in the RSA Forum is open to all national registry administrators, the CDM registry administrator and the EUTL administrator. A number of experts from Parties to the Kyoto Protocol that are not included in Annex I to the Convention are also invited to attend.

49. The 20th RSA Forum took place in Bonn on 27 and 28 September 2018. The key objective was to provide:

(a) An update on actions arising from the previous RSA Forum;

(b) An overview of activities related to the ITL data centre migration;

(c) Information on the status of ITL operations, with a focus on transport layer security upgrades;

(d) Feedback on the independent assessment reporting processes conducted during the reporting period.

50. Presentations were made to promote information-sharing among RSAs and to provide feedback on related or emerging initiatives on the following matters:

(a) Status of negotiations under Article 6 of the Paris Agreement;

(b) Status of ratification of the Doha Amendment;

(c) Blockchain and greenhouse gas (GHG) emissions trading;

(d) The Carbon Offsetting and Reduction Scheme for International Aviation;

(e) Money laundering and GHG emissions trading.

1. Blockchain working group

51. During the presentation on blockchain, the following concerns were expressed with regard to the use of the technology for GHG emissions trading:

(a) Potential loss of funds if private keys are lost;

(b) Risk of facilitating money laundering;

(c) Possible lack of reconciliation of records;

[16] In accordance with decision 16/CP.10.

(d) Impossibility of undoing or cancelling fraudulent or otherwise erroneous transactions owing to the immutability of the ledger;

(e) Unclarity of the regulatory landscape, including illegality of some types of blockchains in several countries;

(f) Lack of available pilot at this stage.

52. Consequently RSAs requested the establishment of a working group to assess whether blockchain is an adequate technology to ensure accurate, secure and efficient transfer of units between registry systems. The working group will start its work in October 2018.

2. Security working group

53. The purpose of the security working group is to elaborate options for enhancing information security controls in systems supporting emissions trading under the Kyoto Protocol, as requested at SBI 40.[17]

54. The security working group did not meet during the reporting period.

55. As requested at the 20th RSA Forum, the security working group will continue to meet regularly to discuss information on security matters related to registry systems.

F. Other activities

56. The ITL administrator continues to monitor the negotiations under Article 6 of the Paris Agreement for any potential impacts on the ITL.

III. Organizational arrangements and resources

57. The functions of the ITL administrator are assumed by the ICT programme of the secretariat, which is also responsible for software delivery and supporting the secretariat's information technology infrastructure.

A. Resource requirements and expenditure

58. The resource requirements for activities relating to the ITL and the ITL administrator, to be funded from supplementary sources for the bienniums 2006–2007,[18] 2008–2009,[19] 2010–2011,[20] 2012–2013,[21] 2014–2015,[22] 2016–2017[23] and 2018–2019,[24] were identified in the proposed programme budgets for the respective bienniums.

59. The budget for the ITL for the biennium 2018–2019[25] is EUR 5,204,520, including a working capital reserve of EUR 216,240.

60. CMP 3 requested the Executive Secretary to provide a breakdown of the expenditure on developing and operating the ITL with a view to optimizing cost structure.[26] Table 1 shows the expenditure of the ITL in the biennium 2018–2019 by object of expenditure.

[17] FCCC/SBI/2014/8, paragraph 72.
[18] See document FCCC/SBI/2005/8/Add.2.
[19] See document FCCC/SBI/2007/8/Add.2.
[20] See document FCCC/SBI/2009/2/Add.3.
[21] See document FCCC/SBI/2011/2/Add.3.
[22] See document FCCC/SBI/2013/6/Add.3.
[23] See document FCCC/SBI/2015/3/Add.3
[24] See document FCCC/SBI/2017/4/Add.2.
[25] See decision 7/CMP.13.
[26] Decision 11/CMP.3, paragraph 14.

Table 1
Expenditure of the international transaction log in the biennium 2018–2019
(euros)

Object of expenditure	*As at 30 September 2018*
Staff costs	548 794
Contractual and consultancy services[a]	844 054
Expert groups	0
Travel of staff	2 465
General operating expenses	24 517
Contributions to common services	108 097
Programme support costs	150 332
Total expenditure	**1 678 259**

[a] The amount for contractual services includes EUR 417,108 obligated for contractual services until the end of 2018 but not spent in the first nine months of 2018.

61. Table 2 shows the expected breakdown of ITL expenditure on contractors and consultants in 2018. Operation services are activities performed by the developer and operators of the ITL to sustain all operations of the ITL, such as infrastructure maintenance and the ITL service desk. Software maintenance services are services performed by the developer of the ITL to support the software implementation activities outlined in this report. Consultancy expenditure is incurred when the secretariat needs to consult experts in specific fields.

Table 2
Breakdown of expenditure of the international transaction log on contractors and consultants in 2018

Object of expenditure	*Percentage of expenditure*
Operation services	82
Production and disaster recovery environments	68
Service desk	5
Registry developer support	9
Security and disaster recovery testing	0
Software maintenance services	15
Consultancy	3

62. CMP 4 requested the ITL administrator to report on planned activities and the related resource requirements with a view to ensuring that adequate means are available to perform those activities.[27]

63. In 2018 the focus of the activities of the ITL was on continued efforts to ensure that registry systems operate securely and reliably.

64. The staffing level of the ITL was in accordance with the requirements included in its budget. The level of staffing is expected to remain unchanged in 2018.

65. The ITL staff:

(a) Provide technical services through the ITL to enable national registries and the CDM registry to perform transactions of Kyoto Protocol units;

(b) Ensure reliable hosting for the ITL and perform upgrades to the hardware and software of the ITL infrastructure, as necessary;

(c) Provide support to national registries, the consolidated system of European Union registries, the EUTL, the CDM registry, the joint implementation and CDM

[27] FCCC/KP/CMP/2008/11, paragraph 72.

information systems and the compilation and accounting database in order to maintain their connections and operations with the ITL;

(d) Initialize, perform and support go-live events for registries not yet connected;

(e) Support changes to the data exchange standards pursuant to decision 24/CP.8 and new releases of ITL and SEF reporting software resulting from operational experience and changes adopted under the common operational procedures for change management;

(f) Facilitate the annual reporting on and review of national registries and accounting of GHG emission units under Articles 7 and 8 of the Kyoto Protocol;

(g) Administer and maintain the RSA extranet;

(h) Facilitate cooperation among RSAs through the RSA Forum and its working groups to ensure that registry systems are accurate, efficient and secure;

(i) Support testing activities of the ITL and registry systems, including through disaster recovery testing and security audits, with a view to enhancing the reliability and security of the ITL;

(j) Make available online training and guidance materials to RSAs and relevant experts from Parties to the Kyoto Protocol that are not included in Annex I to the Convention on the general functioning of the ITL and registry systems, the common operational procedures and other relevant knowledge areas;

(k) Support the obligations of the ITL administrator in accordance with all applicable decisions of the COP and the CMP;

(l) Monitor and support the negotiations under Article 6 of the Paris Agreement to identify potential impacts on the ITL.

B. Income to support the activities of the administrator of the international transaction log

66. As at 30 September 2018, USD 1,963,788 in ITL user fees had been received from Parties for 2007,[28] USD 4,518,060 for 2008, USD 4,745,041 for 2009, EUR 3,014,423 for 2010, EUR 3,014,423 for 2011, EUR 2,885,010 for 2012, EUR 2,759,483 for 2013, EUR 2,740,760 for 2014, EUR 2,740,760 for 2015, EUR 2,602,275 for 2016, EUR 2,602,275 for 2017, and EUR 1,281,997 for 2018 with EUR 70,263 outstanding. Two Parties have been credited with advances towards their 2019 ITL fees as a result of overpayment of their 2018 fees and advance payments of their 2019 fees. The secretariat would like to express its gratitude to Parties that have paid their fees. The scale of ITL fees and the status of fee payments for the biennium 2018–2019 as at 30 September 2018 are shown in annex II. The status of fees as at 30 September 2018 is shown in tables 3 and 4.

Table 3

Fees for international transaction log activities in the period 2007–2009 and cumulative shortfall as at 30 September 2018

(United States dollars)

	2007	*2008*	*2009*
Fees budgeted	2 500 000	4 518 060	4 745 741
Fees received	1 963 788	4 518 060	4 745 741
Shortfall	536 212	0	0
Cumulative shortfall	536 212	536 212	536 212

[28] This figure differs from that provided in the annual reports of the ITL administrator prior to 2011 because USD 48,693 in user fees for 2007 was received in July 2011.

Table 4
Fees for international transaction log activities in the period 2010–2018 and cumulative shortfall as at 30 September 2018
(euros)

	2010[a]	*2011*	*2012*	*2013*	*2014*[b]	*2015*[b]	*2016*[b]	*2017*[b]	*2018*[b]
Fees budgeted original	3 014 423	3 014 423	2 885 010	2 885 010	2 740 760	2 740 760	2 675 679[c]	2 675 675[c]	1 352 260
Fees budgeted revised							2 602 275[d]	2 602 275[d]	
Fees received	3 014 423	3 014 423	2 885 010	2 759 483	2 740 760	2 740 760	2 602 275	2 602 275	1 281 997
Shortfall	0	0	0	125 527	0	0	0	0	70 263
Cumulative shortfall	374 812	374 812	374 812	500 339	374 812	374 812	374 812	374 812	445 075

[a] The shortfall for 2009 in United States dollars was carried over to 2010 in euros using the average exchange rate of EUR 0.699 applicable on the day of conversion.

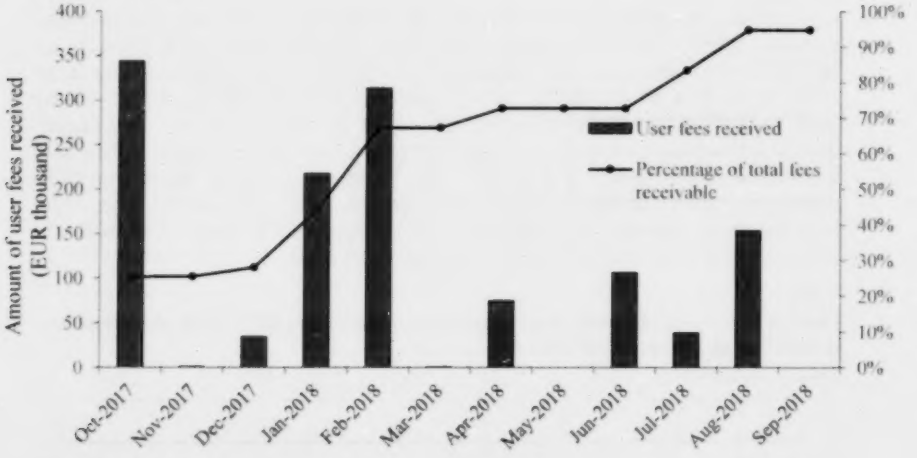
[b] Canada's shortfall of EUR 125,527 was not carried over to 2014 and the following years owing to Canada's withdrawal from the Kyoto Protocol and the resulting disconnection of its registry from the international transaction log.

[c] The amount of fees budgeted for the biennium 2016–2017 as per decision 8/CMP.11.

[d] The amount of fees budgeted for the biennium 2016–2017 decreased resulting from the disconnection of a Party from the international transaction log in 2015.

67. Delays in receiving user fees from Parties have been noted in previous annual reports of the ITL administrator. As at 30 September 2018, EUR 70,263 was still due for 2018 (5.2 per cent of the fees budgeted for 2018). Figure 6 shows the user fees received for 2018 in 2017 and 2018 as at 30 September 2018 and the cumulative percentage of resource requirements, by month.

Figure 6
International transaction log user fees for 2018 received in 2017 and 2018 as at 30 September 2018



68. CMP 13 requested the ITL administrator to disclose in its annual report the unspent balance of the Trust Fund for the International Transaction Log from the previous biennium as at the time of the publication of the report.[29]

69. As at 31 December 2017, the unspent balance of the Trust Fund for the International Transaction Log was USD 7,637,493.26, not including the operating reserve of USD 265,610.51.

[29] Decision 7/CMP.13, paragraph 7.

C. Actions and proposals to optimize the cost structure of the international transaction log

70. The ITL administrator continues to seek ways to optimize the ITL cost structure and is currently considering and continuing the following measures:

(a) Optimizing the data hosting, technology refresh, and licence and third-party support costs of the required software and hardware;

(b) Systematizing, documenting and addressing typical incident, user error and user problem scenarios, while providing proactive guidance to registry systems, to minimize their reoccurrence and associated remedial costs;

(c) Simplifying registry testing arrangements, registry contact management and digital certificate management with the goal of optimizing the costs associated with those activities;

(d) Engaging RSAs in the centralized annual review of national registries, thereby avoiding the cost of consultants and minimizing travel costs;

(e) Providing options for virtual participation and remote meetings with the goal of reducing travel and meeting costs;

(f) Identifying ways to employ secretariat staff instead of consultants or contractors, where possible, including options for consolidating activities related to the ITL service desk, software development and application support.

Annex I

Registry status as at 30 September 2018

Registry	*Issue date of independent assessment report*	*Date of live connection to the international transaction log*
Australia	19 December 2008	19 December 2008
Austria	12 July 2007	16 October 2008
Belarus	-	-
Belgium	7 December 2007	16 October 2008
Bulgaria	10 April 2008	16 October 2008
Clean development mechanism	Not applicable	14 November 2007
Croatia	30 April 2008	11 December 2009
Cyprus	1 February 2017	4 November 2016
Czechia	1 August 2007	16 October 2008
Denmark	16 October 2008	16 October 2008
Estonia	12 November 2007	16 October 2008
European Union	1 February 2008	16 October 2008
Finland	16 November 2007	16 October 2008
France	9 November 2007	16 October 2008
Germany	23 November 2007	16 October 2008
Greece	27 September 2007	16 October 2008
Hungary	8 August 2007	11 July 2008
Iceland	3 January 2008	6 May 2010
Ireland	19 September 2007	16 October 2008
Italy	5 December 2007	16 October 2008
Japan	9 July 2007	14 November 2007
Kazakhstan	-	-
Latvia	13 November 2007	16 October 2008
Liechtenstein	7 December 2007	21 October 2008
Lithuania	29 October 2007	16 October 2008
Luxembourg	7 December 2007	16 October 2008
Malta	22 February 2017	4 November 2016
Monaco	9 April 2008	30 July 2015
Netherlands	19 September 2007	16 October 2008
New Zealand	27 July 2007	3 December 2007
Norway	27 September 2007	21 October 2008
Poland	5 December 2007	16 October 2008
Portugal	24 October 2007	16 October 2008
Romania	30 April 2008	16 October 2008
Russian Federation[a]	12 November 2007	4 March 2008
Slovakia	13 September 2007	16 October 2008
Slovenia	25 October 2007	16 October 2008
Spain	8 October 2007	16 October 2008
Sweden	9 November 2007	16 October 2008
Switzerland	8 August 2007	4 December 2007
Ukraine	10 December 2007	28 October 2008
United Kingdom	16 August 2007	16 October 2008

[a] Party disconnected from the international transaction log on 30 December 2015 in accordance with decision 8/CMP.11.

Annex II

Scale of international transaction log fees and status of fee payments for the biennium 2018–2019 as at 30 September 2018

		2018				2019			
Party	*Scale of fees (per cent)*	*Budgeted (EUR)*	*Balance of fees after credit from unspent balances (EUR)*	*Received (EUR)*	*Outstanding (EUR)*	*Budgeted (EUR)*	*Balance of fees after credit from unspent balances (EUR)[b]*	*Received (EUR)*	*Outstanding (EUR)*
Australia	2.841	75 960	39 472	39,472	0	75 960	39 472	0	39 472
Austria	1.588	42 443	22 055	22,055	0	42 443	22 055	0	22 055
Belarus[a]	0.073	-	-	0	-	-	-	0	-
Belgium	1.973	52 748	27 410	0	27 410	52 748	27 410	0	27 410
Bulgaria	0.036	963	500	500	0	963	500	0	500
Croatia	0.079	2 108	1 095	1 095	0	2 108	1 095	0	1 095
Cyprus	0.061	1 639	852	852	0	1 639	852	0	852
Czechia	0.503	13 454	6 991	6 991	0	13 454	6 991	6 991	0
Denmark	1.323	35 365	18 377	18 377	0	35 365	18 377	0	18 377
Estonia	0.028	755	392	392	0	755	392	0	392
European Union	2.685	71 770	37 295	37 295	0	71 770	37 295	0	37 295
Finland	1.009	26 985	14 023	14 023	0	26 985	14 023	0	14 023
France	10.667	285 182	148 194	148 194	0	285 182	148 194	0	148 194
Germany	15.35	410 402	213 266	213 266	0	410 402	213 266	0	213 266
Greece	1.065	28 469	14 794	14 794	0	28 469	14 794	14 794	0
Hungary	0.437	11 684	6 072	6 072	0	11 684	6 072	0	6 072
Iceland	0.737	19 699	10 237	10 237	0	19 699	10 237	0	10 237
Ireland	0.797	21 313	11 075	11 075	0	21 313	11 075	0	11 075
Italy	9.090	242 999	126 274	126 274	0	242 999	126 274	0	126 274
Japan	14.939	399 369	207 531	207 531	0	399 369	207 531	0	207 531
Kazakhstan[a]	0.157	-	-	0	-	-	-	0	-
Latvia	0.032	859	446	446	0	859	446	0	446
Liechtenstein	0.188	5 022	2 610	2 610	0	5 022	2 610	0	2 610
Lithuania	0.055	1 483	771	771	0	1 483	771	0	771
Luxembourg	0.153	4 086	2 123	2 123	0	4 086	2 123	0	2 123
Malta	0.021	572	297	0	297	572	297	0	297
Monaco	0.181	4 840	2 515	2 515	0	4 840	2 515	0	2 515
Netherlands	3.352	89 622	46 572	46 572	0	89 622	46 572	0	46 572
New Zealand	0.961	25 684	13 347	13 347	0	25 684	13 347	0	13 347
Norway	2.319	61 986	32 211	0	32 211	61 986	32 211	0	32 211
Poland	0.896	23 941	12 441	12 441	0	23 941	12 441	0	12 441
Portugal	0.943	25 216	13 103	13 103	0	25 216	13 103	0	13 103
Romania	0.125	3 331	1 731	1 731	0	3 331	1 731	0	1 731
Russian Federation[a]	2.743	-	-	0	-	-	-	0	-
Slovakia	0.113	3 019	1 569	1 569	0	3 019	1 569	0	1 569
Slovenia	0.171	4 580	2 380	2 380	0	4 580	2 380	0	2 380
Spain	5.311	141 979	73 779	73 779	0	141 979	73 779	0	73 779
Sweden	1.917	51 238	26 626	26 626	0	51 238	26 626	0	26 626
Switzerland	2.760	73 774	38 337	38 337	0	73 774	38 337	0	38 337
Ukraine	0.745	19 907	10 345	0	10 345	19 907	10 345	0	10 345
United Kingdom	11.888	317 814	165 152	165 152	0	317 814	165 152	0	165 152
Total		**2 602 260**	**1 352 260**	**1 281 997**	**70 263**	**2 602 260**	**1 352 260**	**21 785**	**1 330 475**

[a] Parties currently not connected to the international transaction log, which will be subject to international transaction log fees in case of connection or reconnection to the international transaction log in accordance with decision 7/CMP.13, paragraphs 11–13.

Annex III

Number of transactions proposed to the international transaction log from 1 October 2017 to 30 September 2018

Registry	*Acquisition*[a]	*Transfer*[b]	*Forwarding*[c]	*Internal transfer*[d]	*Issuance*[e]	*Retirement*[f]	*Cancellation*[g]	*Total*
Australia	46	39	0	0	0	0	46	131
Austria	1	2	0	0	0	0	1	4
Belarus[h]	0	0	0	0	0	0	0	0
Belgium	0	4	0	0	0	0	1	5
Bulgaria	0	0	0	0	0	0	0	0
Clean development mechanism	0	12	499	0	372	0	1 606	2 489
Croatia	0	0	0	0	0	0	0	0
Cyprus	0	0	0	0	0	0	0	0
Czechia	0	1	0	0	0	0	1	2
Denmark	2	1	0	0	0	0	3	6
Estonia	0	0	0	0	0	0	0	0
European Union	343	150	0	0	0	0	500	993
Finland	20	6	0	2	0	0	3	31
France	4	0	0	0	0	0	18	22
Germany	37	54	0	0	0	0	84	175
Greece	0	0	0	0	0	0	0	0
Hungary	0	0	0	2	0	0	1	3
Iceland	0	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0	0
Italy	4	5	0	1	0	0	4	14
Japan	0	0	0	0	0	0	0	0
Kazakhstan[h]	0	0	0	0	0	0	0	0
Latvia	0	0	0	0	0	0	0	0
Liechtenstein	8	1	0	0	0	0	0	9
Lithuania	0	0	0	0	0	0	0	0
Luxembourg	7	4	0	0	0	0	0	11
Malta	0	0	0	0	0	0	0	0
Monaco	0	0	0	0	0	0	0	0
Netherlands	21	102	0	0	0	0	118	241
New Zealand	0	0	0	0	0	0	117	117
Norway	13	8	0	10	0	0	47	78
Poland	0	0	0	0	0	0	4	4
Portugal	0	0	0	6	0	0	4	10
Romania	0	0	0	2	0	0	0	2
Russian Federation[h]	0	0	0	0	0	0	0	0
Slovakia	0	0	0	0	0	0	0	0
Slovenia	0	0	0	0	0	0	0	0
Spain	13	26	0	14	0	0	27	80
Sweden	26	36	0	16	0	0	127	205
Switzerland	94	166	0	72	0	0	198	530
Ukraine	0	0	0	0	0	0	0	0
United Kingdom	37	71	0	0	0	0	93	201
Total	**676**	**688**	**499**	**125**	**372**	**0**	**3 003**	**5 363**

Note: Completed transactions of assigned amount units, emission reduction units, removal units, certified emission reductions, long-term certified emission reductions and temporary certified emission reductions have been accounted for.

[a] Acquisition from another national registry. See decision 13/CMP.1, annex, paragraph 30.

[b] Transfer to another national registry. See decision 13/CMP.1, annex, paragraph 30.

[c] Forwarding from the clean development mechanism registry to a national registry. See decision 3/CMP.1, annex, paragraph 66(b). Transfers from the clean development mechanism registry to a national registry in support of the Adaptation Fund are excluded.

[d] Transfer within the registry. See decision 13/CMP.1, annex, paragraph 30.

[e] See decision 13/CMP.1, annex, paragraphs 23–29; decision 3/CMP.1, annex, paragraphs 64–66; and decision 5/CMP.1, annex, paragraphs 36 and 37. Issuance of emission reduction units by converting assigned amount units or removal units is included.

[f] See decision 13/CMP.1, annex, paragraph 34.

[g] See decision 13/CMP.1, annex, paragraph 33.

[h] Parties currently not connected to the international transaction log.

Annex IV

Number of Kyoto Protocol units subject to transactions proposed to the international transaction log from 1 October 2017 to 30 September 2018

Registry	*Acquisition*[a]	*Transfer*[b]	*Net transfer*[c]	*Forwarding*[d]	*Internal transfer*[e]	*Issuance*[f]	*Retirement*[g]	*Cancellation*[h]
Australia	2 685 397	2 622 163	–63 234	0	0	0	0	1 587 733
Austria	9 171	590 000	580 829	0	0	0	0	55 794
Belarus[i]	0	0	0	0	0	0	0	0
Belgium	0	112 141	112 141	0	0	0	0	22 150
Bulgaria	0	0	0	0	0	0	0	0
Clean development mechanism	0	424 923	424 923	34 055 889	0	95 728 387	0	11 867 033
Croatia	0	0	0	0	0	0	0	0
Cyprus	0	0	0	0	0	0	0	0
Czechia	0	13 249	13 249	0	0	0	0	2
Denmark	1 092	2 559	1 467	0	0	0	0	7 079
Estonia	0	0	0	0	0	0	0	0
European Union	25 294 076	7 616 873	–17 677 203	0	0	0	0	3 929 054
Finland	641 258	345 109	–296 149	0	27 505	0	0	18 539
France	262 000	0	–262 000	0	0	0	0	95 934
Germany	1 265 702	2 098 632	832 930	0	0	0	0	947 841
Greece	0	0	0	0	0	0	0	0
Hungary	0	0	0	0	72	0	0	3 099
Iceland	0	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0	0
Italy	70 000	327 499	257 499	0	200	0	0	6 146
Japan	0	0	0	0	0	0	0	0
Kazakhstan[i]	0	0	0	0	0	0	0	0
Latvia	0	0	0	0	0	0	0	0
Liechtenstein	150 323	10 548	–139 775	0	0	0	0	0
Lithuania	0	0	0	0	0	0	0	0
Luxembourg	56 457	4 645	–51 812	0	0	0	0	0
Malta	0	0	0	0	0	0	0	0
Monaco	0	0	0	0	0	0	0	0
Netherlands	858 325	14 596 476	13 738 151	0	0	0	0	147 097
New Zealand	0	0	0	0	0	0	0	46 734

Registry	*Acquisition*[a]	*Transfer*[b]	*Net transfer*[c]	*Forwarding*[d]	*Internal transfer*[e]	*Issuance*[f]	*Retirement*[g]	*Cancellation*[h]
Norway	230 004	152 890	–77 114	0	2 795 714	0	0	35 508
Poland	0	0	0	0	0	0	0	18 651
Portugal	0	0	0	0	24 847	0	0	542
Romania	0	0	0	0	21 101	0	0	0
Russian Federation[i]	0	0	0	0	0	0	0	0
Slovakia	0	0	0	0	0	0	0	0
Slovenia	0	0	0	0	0	0	0	0
Spain	278 652	218 247	–60 405	0	2 519	0	0	241 072
Sweden	1 279 145	1 163 925	–115 220	0	576 709	0	0	5 292 689
Switzerland	8 255 928	10 406 828	2 150 900	0	1 962 464	0	0	1 467 251
Ukraine	0	0	0	0	0	0	0	0
United Kingdom	7 460 156	8 515 902	1 055 746	0	0	0	0	1 228 098
Total	**48 797 686**	**49 222 609**	**424 923**	**34 055 889**	**5 411 131**	**95 728 387**	**0**	**27 018 046**

Note: Completed transactions of assigned amount units, emission reduction units, removal units, certified emission reductions, long-term certified emission reductions and temporary certified emission reductions have been accounted for.

[a] Acquisition from another national registry. See decision 13/CMP.1, annex, paragraph 30.

[b] Transfer to another national registry. See decision 13/CMP.1, annex, paragraph 30.

[c] Net transfer is equal to transfer minus acquisition.

[d] Forwarding from the clean development mechanism registry to a national registry. See decision 3/CMP.1, annex, paragraph 66(b). Transfers from the clean development mechanism registry to a national registry in support of the Adaptation Fund are excluded.

[e] Transfer within the registry. See decision 13/CMP.1, annex, paragraph 30.

[f] See decision 13/CMP.1, annex, paragraphs 23–29; decision 3/CMP.1, annex, paragraphs 64–66; and decision 5/CMP.1, annex, paragraphs 36 and 37. Issuance of emission reduction units by converting assigned amount units or removal units is included.

[g] See decision 13/CMP.1, annex, paragraph 34.

[h] See decision 13/CMP.1, annex, paragraph 33.

[i] Parties currently not connected to the international transaction log.